



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,024	09/02/2003	Gregg M. Duthaler	H-357	2023

26245 7590 11/28/2007
DAVID J COLE
E INK CORPORATION
733 CONCORD AVE
CAMBRIDGE, MA 02138-1002

EXAMINER

THOMAS, BRANDI N

ART UNIT	PAPER NUMBER
----------	--------------

2873

MAIL DATE	DELIVERY MODE
-----------	---------------

11/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/605,024	Applicant(s) DUTHALER ET AL.	
	Examiner Brandi N. Thomas	Art Unit 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-27 and 33-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-27, 33, 35, 37, 39, 41 and 43 is/are rejected.
- 7) ☒ Claim(s) 34, 36, 38, 40, 42 and 44 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Detailed Action</u> . |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 17 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Kiyomi (JP 2002-098945).

Regarding claim 17, Kiyomi discloses, in figure 1, an article of manufacture comprising: a layer of a solid electro-optic medium (5) having first and second surfaces on opposed sides thereof (section 0036); a first adhesive layer (3) on the first surface of the layer of solid electro-optic medium (section 0036); a release sheet (7) disposed on the opposed side of the first adhesive layer (3) from the layer of solid electro-optic medium (5) (section 0036); and a second adhesive layer (6) on the second surface of the layer of solid electro-optic medium (5) (section 0036).

Regarding claim 18, Kiyomi discloses, in figure 1, an article of manufacture, further comprising a second release sheet (2) disposed on the opposed side of the second adhesive layer (6) from the layer of solid electro-optic medium (5) (section 0036).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 19, 22-26, 33, 35, 37, 39, 41, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiyomi (JP 2002-098945) as applied to claim 19 above, and further in view of Kazlas et al. (2002/0106847).

Regarding claims 19, 22 33, 37, and 41, Kiyomi discloses the claimed invention but does not specifically disclose wherein the electro-optic medium is an electrophoretic medium comprising a plurality of capsules, each capsule comprising a suspending fluid, a plurality of electrically charged particles suspended in the suspending fluid and capable of moving therethrough on application of an electric field to the suspending fluid, and a capsule wall surrounding the suspending fluid and the electrically charged particles. Kazlas et al. discloses, in figure 11, an article of manufacture, wherein the electro-optic medium (126) is an electrophoretic medium (section 0109) comprising a plurality of capsules (124), each capsule (124) comprising a suspending fluid (section 0108), a plurality of electrically charged particles (not shown, located in the capsules 124) suspended in the suspending fluid and capable of moving therethrough on application of an electric field to the suspending fluid, and a capsule wall surrounding the suspending fluid and the electrically charged particles (not shown, located in the capsules 124) (sections 0108 and 0109). Therefore it would have been obvious to one having ordinary skill in

the art at the time of the invention to combine the device of Kiyomi with the electrophoretic medium of Kazlas et al. for the purpose of displaying a visible state (section 0108).

Regarding claim 23, Kiyomi discloses, in figure 1, an article of manufacture comprising: a layer of a solid electro-optic medium (5) having first and second surfaces on opposed sides thereof (section 0036); a first adhesive layer (3) on the first surface of the layer of solid electro-optic medium (section 0036); a release sheet (7) disposed on the opposed side of the first adhesive layer (3) from the layer of solid electro-optic medium (5) (section 0036); and a second adhesive layer (6) on the second surface of the layer of solid electro-optic medium (5) (section 0036); laminating the article to a front substrate via the second adhesive layer (6), thereby forming a front subassembly (section 0034); removing the release sheet (7) from the front subassembly (section 0034); and laminating the front subassembly via the first adhesive layer (3) to a backplane, thereby forming the electro-optic display (section 0034) but does not specifically disclose at least one electrode. Kazlas et al. discloses at least one electrode (104) (section 0114). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the device of Kiyomi with the electrode of Kazlas et al. for the purpose of forming a display (section 0114).

Regarding claim 24, Kiyomi discloses the claimed invention but does not specifically disclose wherein the front substrate comprises an electrode. Kazlas et al. discloses, in figure 11, wherein the front substrate (101) discloses an electrode (102) (section 0106). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the device electrode of Kazlas et al. for the purpose of forming a display (section 0114).

Regarding claim 25, Kiyomi and Kazlas et al. disclose the claimed invention but do not specifically disclose the use of a color filter array. However, Kazlas et al. does disclose the use of light colors in the electrophoretic particles (section 0137). It would have been obvious to one having ordinary skill in the art at the time of the invention to use either a color filter array or light colored particles for the purpose of their known equivalents.

Regarding claim 26, Kiyomi discloses, in figure 1, a process wherein the article of manufacture comprises a second release sheet (2) covering the second adhesive layer (6) (section 0036), and the process comprises removing the second release sheet (2) from the second adhesive layer (6) prior to laminating the article to the front substrate (section 0034).

Regarding claims 35, 39, and 43, Kiyomi discloses the claimed invention but does not specifically disclose wherein the suspending fluid and the plurality of electrically charged particles are retained within a plurality of cavities formed in a carrier medium. Kazlas et al. discloses, in figure 11, wherein the suspending fluid and the plurality of electrically charged particles are retained within a plurality of cavities (124) formed in a carrier medium (126) (sections 0108 and 0109). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the device of Kiyomi with the electrophoretic medium of Kazlas et al. for the purpose of displaying a visible state (section 0108).

5. Claims 20, 21, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiyomi (JP 2002-098945).

Regarding claims 20 and 27, Kiyomi discloses, in figure 1, an article of manufacture, wherein the first and second adhesives layers (3 and 6) but does not specifically disclose the

adhesive layers extending beyond the periphery of the layer of electro-optic medium. It would have been obvious to one having ordinary skill in the art at the time of the invention to expand the adhesive layers for the purpose of sealing the edge of the display.

Regarding claim 21, Kiyomi discloses, in figure 1, an article of manufacture, a layer of a solid electro-optic medium (5) having first and second surfaces on opposed sides thereof (section 0036); a first release sheet (7) over the first surface of the layer of solid electro-optic medium (5) (section 0036); a second release sheet (2) over the second surface of the layer of solid electro-optic medium (5) (section 0036) but does not specifically disclose the release sheets in contact the electro-optic medium. However, It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the invention to have the release sheets in contact the electro-optic medium, since it has been held that rearranging parts of an invention involves only routine skill in the art (In re Japiske, 86 USPQ 70). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the invention to have the release sheets in contact the electro-optic medium for the purpose of transfer onto a substrate.

Allowable Subject Matter

6. Claims 34, 36, 38, 40, 42, and 44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitations of the independent claim(s), in such a manner that a rejection under 35 U.S.C. 102

or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in claim(s) 34, 36, 38, 40, 42, and 44, wherein the claimed invention comprises, in claims 34, 38, and 42, wherein the suspending fluid and the plurality of electrically charged particles are present as a plurality of discrete droplets and a continuous phase of polymeric material surrounds the droplets; in claims 36, 40, and 44, wherein the electro-optic medium is a rotating bichromal member medium or an electrochromic medium, as claimed.

Response to Arguments

8. Applicant's arguments with respect to claims 17-27 and 33-44 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandi N. Thomas whose telephone number is 571-272-2341.

The examiner can normally be reached on Monday - Thursday from 6-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/605,024
Art Unit: 2873

Page 8

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



BNT
November 20, 2007

Brandi N Thomas
Examiner
Art Unit 2873



Scott J. Sugarman
Primary Examiner